# Performance Data Sheet

## TPA0423YXA

## General Information

| | | | |
|---|---|---|---|
| **Model** | TPA0423YXA | **Refrigerant** | R-134a |
| **Test Condition** | ARI | **Performance Test Voltage** | 115V ~ 60HZ |
| **Return Gas** | 4.4°C (40°F) RETURN GAS | **Motor Type** | RSIR |

## Performance Information

| Evap Temp (°F) | | Condensing Temperature (°F) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | **80** | **90** | **100** | **110** | **120** | **130** | **140** |
| **0** | Btu/h | 1890 | 1740 | 1600 | 1460 | 1320 | 1180 | 1050 |
| | Watts | 332 | 337 | 342 | 347 | 352 | 357 | 362 |
| | Amps | 5.39 | 5.40 | 5.42 | 5.43 | 5.44 | 5.46 | 5.47 |
| | Lb/h | 26.8 | 25.8 | 24.7 | 23.7 | 22.6 | 21.6 | 20.5 |
| **5** | Btu/h | 2200 | 2030 | 1860 | 1690 | 1520 | 1350 | 1180 |
| | Watts | 353 | 360 | 366 | 373 | 379 | 386 | 392 |
| | Amps | 5.47 | 5.50 | 5.52 | 5.54 | 5.56 | 5.59 | 5.61 |
| | Lb/h | 30.9 | 29.7 | 28.4 | 27.1 | 25.9 | 24.6 | 23.2 |
| **10** | Btu/h | 2540 | 2350 | 2150 | 1950 | 1750 | 1560 | 1360 |
| | Watts | 375 | 384 | 392 | 401 | 409 | 417 | 425 |
| | Amps | 5.58 | 5.62 | 5.65 | 5.68 | 5.72 | 5.75 | 5.78 |
| | Lb/h | 35.7 | 34.3 | 32.9 | 31.4 | 30.0 | 28.5 | 27.0 |
| **15** | Btu/h | 2910 | 2690 | 2470 | 2250 | 2020 | 1800 | 1580 |
| | Watts | 399 | 409 | 420 | 430 | 440 | 450 | 460 |
| | Amps | 5.72 | 5.76 | 5.81 | 5.85 | 5.90 | 5.94 | 5.99 |
| | Lb/h | 41.0 | 39.5 | 38.0 | 36.4 | 34.8 | 33.2 | 31.5 |
| **20** | Btu/h | 3290 | 3050 | 2810 | 2570 | 2320 | 2070 | 1820 |
| | Watts | 422 | 435 | 448 | 461 | 473 | 485 | 497 |
| | Amps | 5.87 | 5.93 | 5.99 | 6.04 | 6.10 | 6.16 | 6.21 |
| | Lb/h | 46.6 | 45.0 | 43.4 | 41.8 | 40.1 | 38.4 | 36.6 |
| **25** | Btu/h | 3680 | 3420 | 3160 | 2900 | 2630 | 2360 | 2090 |
| | Watts | 446 | 461 | 477 | 491 | 506 | 521 | 535 |
| | Amps | 6.04 | 6.11 | 6.18 | 6.26 | 6.33 | 6.40 | 6.47 |
| | Lb/h | 52.3 | 50.7 | 49.1 | 47.5 | 45.8 | 44.0 | 42.2 |
| **30** | Btu/h | 4070 | 3800 | 3520 | 3240 | 2950 | 2660 | 2370 |
| | Watts | 469 | 487 | 505 | 522 | 539 | 556 | 572 |
| | Amps | 6.23 | 6.32 | 6.40 | 6.49 | 6.57 | 6.65 | 6.74 |
| | Lb/h | 57.9 | 56.4 | 54.9 | 53.3 | 51.6 | 49.8 | 48.0 |

| COEFFICIENTS | CAPACITY | POWER | CURRENT | MASS FLOW |
|---|---|---|---|---|
| C1 | 3.018193E+03 | 2.919562E+02 | 5.303627E+00 | 3.530047E+01 |
| C2 | 1.022781E+02 | 1.028650E+00 | -3.567418E-03 | 1.029121E+00 |

| | | | | |
|---|---|---|---|---|
| C3 | -1.422530E+01 | 4.917935E-01 | 1.124236E-03 | -1.081843E-01 |
| C4 | 4.530221E-01 | 2.004224E-02 | 4.722634E-04 | 9.163987E-03 |
| C5 | -5.092956E-01 | 3.871268E-02 | 2.263402E-04 | -2.727648E-03 |
| C6 | 6.217480E-04 | 2.939239E-04 | -1.367039E-06 | 3.552518E-05 |
| C7 | -1.153873E-02 | -8.533621E-04 | -3.955113E-06 | -2.505778E-04 |
| C8 | 4.732596E-03 | 3.433306E-04 | 1.611618E-06 | 1.025147E-04 |
| C9 | -4.981042E-04 | -3.530672E-05 | -1.673360E-07 | -1.076648E-05 |
| C10 | 2.330440E-06 | -1.845434E-06 | 1.322517E-08 | -1.255329E-07 |

Value = C1 + C2 * Te + C4 * Te^2 + C7 * Te^3 + (C3 + C5 * Te + C8 * Te^2) * Tc + (C6 + C9 * Te) * Tc^2 + C10 * Tc^3

Te = Evaporator Temperature

Tc = Condensing Temperature

# Performance Data Sheet

## TPA0423YXA

## General Information

| | | | |
|---|---|---|---|
| **Model** | TPA0423YXA | **Refrigerant** | R-134a |
| **Test Condition** | ARI | **Performance Test Voltage** | 115V ~ 60HZ |
| **Return Gas** | 18.3°C (65°F) RETURN GAS | **Motor Type** | RSIR |

## Performance Information

| Evap Temp (°F) | | Condensing Temperature (°F) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | **80** | **90** | **100** | **110** | **120** | **130** | **140** |
| **20** | Btu/h | 3640 | 3370 | 3100 | 2820 | 2540 | 2240 | 1930 |
| | Watts | 419 | 432 | 444 | 456 | 468 | 480 | 491 |
| | Amps | 6.00 | 6.04 | 6.07 | 6.09 | 6.10 | 6.10 | 6.08 |
| | Lb/h | 48.2 | 46.3 | 44.4 | 42.3 | 40.2 | 38.0 | 35.7 |
| **25** | Btu/h | 4090 | 3800 | 3510 | 3210 | 2910 | 2600 | 2280 |
| | Watts | 441 | 456 | 471 | 486 | 500 | 515 | 529 |
| | Amps | 6.16 | 6.22 | 6.29 | 6.36 | 6.42 | 6.48 | 6.52 |
| | Lb/h | 54.1 | 52.1 | 50.1 | 48.1 | 46.0 | 43.9 | 41.7 |
| **30** | Btu/h | 4590 | 4260 | 3930 | 3610 | 3290 | 2960 | 2630 |
| | Watts | 465 | 482 | 499 | 516 | 533 | 550 | 567 |
| | Amps | 6.30 | 6.39 | 6.49 | 6.59 | 6.69 | 6.80 | 6.89 |
| | Lb/h | 60.6 | 58.5 | 56.5 | 54.4 | 52.3 | 50.2 | 48.1 |
| **35** | Btu/h | 5130 | 4760 | 4400 | 4040 | 3690 | 3340 | 2990 |
| | Watts | 491 | 510 | 529 | 549 | 568 | 587 | 606 |
| | Amps | 6.44 | 6.55 | 6.67 | 6.80 | 6.93 | 7.07 | 7.21 |
| | Lb/h | 67.8 | 65.6 | 63.4 | 61.3 | 59.2 | 57.0 | 54.9 |
| **40** | Btu/h | 5720 | 5310 | 4910 | 4510 | 4130 | 3750 | 3370 |
| | Watts | 520 | 541 | 561 | 583 | 604 | 626 | 647 |
| | Amps | 6.61 | 6.72 | 6.85 | 6.99 | 7.15 | 7.32 | 7.49 |
| | Lb/h | 75.9 | 73.5 | 71.2 | 68.9 | 66.6 | 64.4 | 62.2 |
| **45** | Btu/h | 6380 | 5920 | 5470 | 5030 | 4600 | 4190 | 3770 |
| | Watts | 551 | 573 | 596 | 619 | 642 | 666 | 689 |
| | Amps | 6.80 | 6.91 | 7.04 | 7.19 | 7.37 | 7.55 | 7.75 |
| | Lb/h | 84.9 | 82.2 | 79.7 | 77.2 | 74.8 | 72.4 | 70.1 |
| **50** | Btu/h | 7120 | 6600 | 6090 | 5610 | 5130 | 4670 | 4220 |
| | Watts | 585 | 609 | 633 | 658 | 683 | 708 | 734 |
| | Amps | 7.04 | 7.14 | 7.26 | 7.41 | 7.59 | 7.78 | 7.99 |
| | Lb/h | 94.9 | 91.9 | 89.1 | 86.3 | 83.7 | 81.2 | 78.7 |

| COEFFICIENTS | CAPACITY | POWER | CURRENT | MASS FLOW |
|---|---|---|---|---|
| C1 | 3.317628E+03 | 3.167057E+02 | 5.866525E+00 | 4.374671E+01 |
| C2 | 1.071330E+02 | -7.116144E-01 | -2.527073E-03 | 7.028038E-01 |

| | | | | |
|---|---|---|---|---|
| C3 | -1.402174E+01 | 4.053460E-01 | -7.498897E-03 | -1.507386E-01 |
| C4 | 7.862973E-01 | 3.861131E-02 | -2.021318E-04 | 1.402334E-02 |
| C5 | -6.348984E-01 | 4.279617E-02 | 5.458291E-04 | -2.000049E-03 |
| C6 | -1.525044E-03 | 1.024738E-05 | -6.478189E-06 | 6.930510E-06 |
| C7 | 1.297444E-02 | 3.707873E-04 | 1.930941E-05 | 1.001571E-04 |
| C8 | -1.265693E-02 | -3.659813E-04 | -1.849415E-05 | -1.004971E-04 |
| C9 | 3.906934E-03 | 1.143148E-04 | 5.608835E-06 | 3.184330E-05 |
| C10 | -3.655649E-04 | -1.126216E-05 | -4.818559E-07 | -3.205634E-06 |

Value = C1 + C2 * Te + C4 * Te^2 + C7 * Te^3 + (C3 + C5 * Te + C8 * Te^2) * Tc + (C6 + C9 * Te) * Tc^2 + C10 * Tc^3

Te = Evaporator Temperature

Tc = Condensing Temperature